

Qy	33	SEQQIPLSV-VKLWASAFGGEIKSIAAKYSGSQLLQKKYKEYEKDVAIEEIDGLQLVKKL	91
Db	25	seepfpsavtikswvdkmqedlvtlaktasgvnqlvdiyekyqdltyvepnнарqlveia	84
Qy	92	AKNMEEMFHKKSEAVRRLVEAAEEAHLKHEFDADL---QYEFNAVLINERDKDGNFLEL	148
Db	85	ardiekl1snrskalvrlaleaekvqaahqwredfasnevvyynak--ddldpekndsep	142
Qy	149	GKEFI--LAPNDHFNNLPVNISLSDVQVPTNMYNKDPAIVNGVYWSESLNKVFVDNFDRD	206
Db	143	gsqrikpvfiddanfrqrqvsyqhaavhiptdiyegstivlnelnwtsalddvfkknreed	202
Qy	207	PSLIWQYFGSAKGFFRQYPGIKWEPDE---NGVIAFDCNRNKWYIQAATS PKDVLVLDV	263
Db	203	psllwgvfgsatglaryypaspwvdsnrtpnkidlydvrppwyiqgaaspkdmllilvdv	262

Qy 264 SGSMKGLRLTIKQTVSSILDTLGDDDFNIIAYNEELHYVEPCLNGTLVQADRTNKEHF 323
 |||: || | : : :|| :||| ||| | : :| | | |||: ||:
 Db 263 sgsvsgltlklirtsvsemletlsdddfvnvasfnsnaqdvscfq-hlvqanvrnkklvl 320

Qy 324 REHLDKLFAKGIGMLDIALNEAFNLSDFNHTGQGSICSQAIMLITDGAVDTYDTIFAKY 383
 :: :: : ||| : || | :| : |:: ||| ||| : |||||
 Db 321 kdavnnitakgitdykkgfsfafeqllynynvsran--cnkiimlftdggeeraqeifaky 378

Qy 384 NWPDRKVRIFTYLGREAAAFADNLKWMACANKGFFTQISTLADVQENVMEYLHVLSRPKV 443
 | |:|||:|: :|: :||| |||: :| : : :| ||| || || |
 Db 379 n-kdkkvrvtftsvgqhnydrpgiqwmacenkgyyeipsigairintqeyldvlgrpmv 437

Qy 444 I--DQEHVWVTEAYIDSTLTDDQGPVLMTTVAMPVFS----KQNETRSKG-ILLGVVGT 496
 : | : | || |:: : | | :| : :| | :|||:|
 Db 438 lagdkakqvqwnvyldal---elg--lvitgtlpvfntgqfenktnlknqlilgvmgv 492

Qy 497 DVPVKELLKTIPKYKLGIGHYAFAITNNGYILTHPELRL-----LYEEGKKRRKPNYSS 550
 || :::: : |:: | :|| ||| |||:| || | : : :||:| :
 Db 493 dvsledikrltprftlcpngyyfaidpngyvllhpnlpkpgigvgiptinlrkrpvnqn 552

Qy 551 -----VDLSEVEWEDRDDV---LRNAMVNRKTGK--FSMEVK---KTVDKGKRVLVMT 595
 | | : : | :| :|| |:: :||: | || : :||| |
 Db 553 pksqepvtldfldaelendikveirnkmidgesgektfrtlvksqderyidkgnrt---- 608

Qy 596 NDYYYYTDIKGTPFSLGVALSRGHGKYFFRGVNTIEEGLHDLEHPDVSLADEW----- 647
 | :| : || :| : : :| : : ||| : : : | :
 Db 609 --ytwtpvngtdysslalvltysfyyikak--ieetitqarysetlkpdnfeesgytfl 664

Qy 648 ---SYCNTDLHPEHRHLSQLEAIKLYLKKEP-LLQCDKELIQEVLFDA-VVSAPIEAYW 702
 || :|| | : | : : || | : :|| || || : : :||
 Db 665 aprdyc-sdlkpsdnntefllnfnefidrktpnnpscntdlinrvlldagftnelvqnyw 723

Qy 703 TSLALNKSENSDKGVEVAFLGTRTGLSRINLFVGAEQLTNQDFLKAGDKENIFNADHFPL 762
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 Db 724 s-----kqknikgvkarfvvtdggitrryp-----keagenwqenpetyeds 765

Qy 763 WYRRAAEQIPGSFVYSIPF--STGPVNKSNVVTASTSIQLLDERKSPVVAAVGIQMKLEF 820
 :||: : :||:| : :|| : : | ::: : | | |||: :
 Db 766 fykrslnd--dnyvftapyfnksgpgayesgimvskaveiyiqgkllkpavvgikidvns 823

Qy 821 FQRKFWTASRQCASLDGKCSISCDDETVCYCIDNNGFILVS--EDYT-QTGDFGEIEG 877
 : | | : | : : :|| :||: |||: :||| | | ||||:
 Db 824 wienftktsirdpcagpvcdckrnsdvmdcvilddggfllmanhddytnqigrffgeidp 883

Qy 878 AVMNKLLTMGSFKRITLYDYQAMCRANKESSDGAHGLLDPY-----NAFLSAVKW 927
 :| | : : |||:| || | : : :| |
 Db 884 slmrhlvnisvyafnksydyqsvcepgaapkqga-ghrsayvpsiadilqigwwataaaw 942

Qy 928 IMTELVLFLVEF----NLCSWWHSDMTAKAQKLKQTLPCDTEYPAFVSERTIKETTGN 983
 : : | : | || | : | || : : | :| :
 Db 943 silqqfllsltfprlleaadmedddftasmsk-----qsciteqtqyffndsksfsgvl 997

Qy 984 ACEDCSKSFVIQIPSSNLFMVVDS--SCLCESVAPITMAPIEIRYNESLKCERLKAQK 1041
 | :||: | ::: :|| :||: | | : : | : :| :
 Db 998 dcnscsrifhveklmntnlifimveskgtpcdt---rlliaeqtsdgpdpdmvkqpr 1054

Qy 1042 IRRRPESCHGFHPEENARECGGA----PSLQA----QTVLLLL 1076
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 Db 1055 yrkgpdvcfdnnvledytdcggvsglnpslwsiiqiqfvllwl 1097

RESULT 1
 US-08-435-675B-5
 ; Sequence 5, Application US/08435675B
 ; Patent No. 5710250
 ; GENERAL INFORMATION:
 ; APPLICANT: Ellis, Steven Bradley
 ; APPLICANT: Williams, Mark E.

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; APPLICANT: Harpold, Michael Miller
; APPLICANT: Schwartz, Arnold
; APPLICANT: Brenner, Robert
; TITLE OF INVENTION: CALCIUM CHANNEL COMPOSITIONS AND METHODS
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Brown, Martin, Haller & McClain
; STREET: 1660 Union Street
; CITY: San Diego
; STATE: CA
; COUNTRY: USA
; ZIP: 92101-2926
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 1.5
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/435,675B
; FILING DATE: 05-MAY-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/314,083
; FILING DATE: 28-SEP-1994
; APPLICATION NUMBER: US 07/914,231
; FILING DATE: 13-JUL-1992
; APPLICATION NUMBER: US 07/603,751
; FILING DATE: 08-NOV-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Seidman, Stephanie L
; REGISTRATION NUMBER: 33,779
; REFERENCE/DOCKET NUMBER: 6362-53193
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 619-238-0999
; TELEFAX: 619-238-0062
; TELEX:
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1106 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-08-435-675B-5

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Query Match          20.3%; Score 1148.5; DB 1; Length 1106;
Best Local Similarity 28.5%; Pred. No. 1.2e-101;
Matches 320; Conservative 234; Mismatches 440; Indels 129; Gaps 39;

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Qy    33 SEQQIPLSV-VKLWASAFGGEIKSIAAKYSGSQLLQKKYKEYEKDVAIEEIDGLQLVKKL 91
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Db    25 SEEPFPSAVTIKSWVDKMQEDLVTAKTASGVNQLVDIYEKYQDLYTVEPNARQLVEIA 84

Qy    92 AKNMEEMFHHKSEAVRRLVEAAEEAHLKHEFDADL---QYEFNAVLINERDKDGNFLEL 148
      |::|:: :|::| | ||: |:: | : |::| :| :| :|
Db    85 ARDIEKLLSNRSKALVRLALEAEKVQAAHQWREDFASNEVVYNAK--DDLDPKNDSEP 142

Qy   149 GKEFI--LAPNDHFNNLPVNISLSDVQVPTNMYNKDPAIVNGVYWSESLNKVFVDNFDRD 206
      | : | : :| | : | :|::| :| : | :| :| | : |
Db   143 GSQRIKPVFIDANFRRQVSYQHAHVHIPTDIYEGSTIVLNELNWTSALEDDVFKKNREED 202

Qy   207 PSLIWQYFGSAKGFFRQYPGIKWEPDE---NGVIAFDCRNKRWYIQAATSPKDVVILVDV 263
      ||::|| |||| | | || | : | :| | | |||| | ||::|::|
Db   203 PSLWQVFGSATGLARYYPASPWVDNSRTPNKIDLYDVRRRPWYIQAASPKDMLILVDV 262

Qy   264 SGSMKGLRLTIKQTVSSILDTLGDDDFNIIAYNEELHYVEPCLNGTLVQADRTNKEHF 323
      |||: || | : :| :|:| |||| | : ::| | | |||: ||:
Db   263 SGSVSGLTLKLIRTSVSEMLETSLDDDFVNVASFNSNAQDVS-CFQ-HLVQANVRNKKVL 320

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Qy 324 REHLDKLFAKGIGMLDIALNEAFNILSDFNHTGQGSICSQAIMLITDGAVDTYDTIFAKY 383
 Db 321 KDAVNNITAKGITDYKKGFSFAFEQLLNYNVSRAN--CNKIIMLFTDGGEERAQEIFAKY 378

Qy 384 NWPDRKVRIFTYILIGREAAAFADNLKWMACANKGFFTQISTLADVQENVMEYLHVLSRPKV 443
 Db 379 N-KDKKVRVFTFSVGQHNDRGPQIWMACENKGYYYEIPSIGAIRINTQEYLDVLGRPMV 437

Qy 444 I--DQEHVWVTEAYIDSTLTDDQGPVLMTTVAMPVFS----KQNETRSKG-ILGTVVGT 496
 Db 438 LAGDKAKQVQWTVNYLDAL---ELG--LVITGTLPVFNITGQFENKTNLKNQLILGVMGV 492

Qy 497 DVPVKELLKTIPKYKLGIGHYAFAITNNGYILTHPELRL-----LYEEGKKRRKPNYSS 550
 Db 493 DVSLEDIKRLTPRFTLCPNGYYFAIDPNGYVLLHPNLQPKPIGVGIPTINLRKRRPNVQN 552

Qy 551 -----VDLSEVEWEDRDDV---LRNAMVNRKTGK--FSMEVK----KTVDKGKRVLVMT 595
 Db 553 PKSQEPVTLDFLDAELENIDKVEIRNKMIDGESGEKTFRTLKVSQDERYIDKGNRT---- 608

Qy 596 NDYYYTDIKGTPFSLGVALSRGHGKYFFRGVNTIEEGLHDLEHPDVSLEDEW----- 647
 Db 609 --YTWTPVNGTDYSSLALVLPITYSYFYIKAK--IEETITQARYSETLKPDPNFEESGYTFL 664

Qy 648 ---SYCNTDLHPEHRHLSQLEAIKLYLKGEK-LLQCDKELIQEVLFDA-VVSAPIEAYW 702
 Db 665 APRDYC-SDLKPSDNNTEFLNFEIDRKTNNPSCNTDLINRVLLDAGFTNELVQNYW 723

Qy 703 TSLALNKSSENSDKGVEVAFLGTRTGLSRINLFVGAELTNQDFLKAGDKENIFNADHFPL 762
 Db 724 S-----KQKNIKGVKARFVVDGGITRVYP-----KEAGENWQENPETYEDS 765

Qy 763 WYRRAEQIPGSFVYSIPF--STGPVNKSNVVTASTSIQLLDERKSPVVAAVGIQMKLEF 820
 Db 766 FYKRSLDN--DNYVFTAPYFNKSGPGAYESGIMVSKAVEIYIQGKLLKPAVVGKIDVNS 823

Qy 821 FQRKFWTASRQCASLDGKCSISCDDTVNCLIDNNGFILVS--EDYT-QTGDFEIEG 877
 Db 824 WIENFTKTSIRDPCAGPVCCKRNSDVMDCVILDDGGFLLMANHDDYTNQIGRFFGEIDP 883

Qy 878 AVMNKLLTMGSFKRITLYDYQAMCRANKESSDGAHGLLDPY-----NAFLSAVKW 927
 Db 884 SLMRHLVNISVYAFNKSVDYQSVCEPGAAPKQGA-GHRSAYVPSIADILQIGWWATAAAW 942

Qy 928 IMTELVLFLVEF----NLCSWWHSDMTAKAQKLQTLPCDTEYPAFVSERTIKETTGN 983
 Db 943 SILQQFLLSLTFPRLLAADMEDDDFTASMSK-----QSCITEQTQYFFDNDKSFSGVL 997

Qy 984 ACEDCSKSFVQQIPSSNLFMVVDS--SCLCESVAPITMAPIEIRYNESLKCERLKAQK 1041
 Db 998 DCGNCSRIHFHVEKLMNTNLIFIMVESKGTCPCDT---RLLIQAEQTSDDGPDPCDMVKQPR 1054

Qy 1042 IRRRPESCHGFHPEENARECGGA----PSLQA----QTVLILL 1076
 Db 1055 YRKGPDVCFDNNVLEDYTDGCGVSGLNPSLWSIIGIQFVLLWL 1097

RESULT 2

US-08-336-257A-8

; Sequence 8, Application US/08336257A

; Patent No. 5726035

; GENERAL INFORMATION:

; APPLICANT: Jay, Scott D

; APPLICANT: Ellis, Steven B.

; APPLICANT: Harpold, Michael M.

; APPLICANT: Campbell, Kevin P.

; TITLE OF INVENTION: CALCIUM CHANNEL COMPOSITIONS AND METHODS

; NUMBER OF SEQUENCES: 8

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Brown, Martin, Haller & McClain

; STREET: 1660 Union Street

```

; CITY: San Diego
; STATE: CA
; COUNTRY: USA
; ZIP: 92101-2926
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 1.5
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/336,257A
; FILING DATE: 07-NOV-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Seidman, Stephanie L.
; REGISTRATION NUMBER: 33,779
; REFERENCE/DOCKET NUMBER: 54898
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 238-0999
; TELEFAX: (619) 238-0062
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1106 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
; ORIGINAL SOURCE:
US-08-336-257A-8

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Query Match          20.3%; Score 1148.5; DB 1; Length 1106;
Best Local Similarity 28.5%; Pred. No. 1.2e-101;
Matches 320; Conservative 235; Mismatches 439; Indels 129; Gaps 39;

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Qy   33 SEQQIPLSV-VKLWASAFGGEIKSIAAKYSGSOLLQKKYKEYEKDVAIEEIDGLQLVKKL 91
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Db   25 SEEPFSAVTIKSWVDKMQEDLVTAKTASGVHQLVDIYEKYQDLYTVEPNARQLVEIA 84

Qy   92 AKNMEEMFHKKSEAVRRLVEAAEEAHLKHEFDADL---QYEFNAVLINERDKDGNFLEL 148
      |::|:: :|:: || ||: | :: | :|| :: | : | |
Db   85 ARDIEKLLSNRSKALVRLALEAEKVQAAHQWREDFASNEVVYNAK--DDLDPKNESEP 142

Qy  149 GKEFI--LAPNDHFNNLPVNISLSDVQVPTNMYNKDPAIVNGVYWSESLNKVFVDNFDRD 206
      | : | : :|   | : : | :|::|   ::| : | : :| || | : |
Db  143 GSQRIKPVFIDDANFRRQVSYQHAHVHIPTDIYEGSTIVLNELNWTSALEDDVFKNREED 202

Qy  207 PSLIWQYFGSAKGFFRQYPGIKWEPE---NGVIAFDCRNKRWYIQAATSPKDVVILVDV 263
      |||::| |||| | | || | : | : | | | ||| | ||||:|||||
Db  203 PSLLWQVFGSATGLARYYPASPWDNSRTPNKIDLYDVRPPWYIQGAASPKDMLILVDV 262

Qy  264 SGSMKGLRLTIKQTVSSILDTLGDDFFNIIAYNEELHYVEPCLNGTLVQADRTNKEHF 323
      |||: || | : : :|| :|:| |||| | : :| | | ||||: ||:
Db  263 SGSVSGTLKLRITSVSEMLETLSDDDFNVNASFNSNAQDVS-CFQ-HLVQANVRNKKVL 320

Qy  324 REHLDKLFAKGIGMLDIALNEAFNILSDFNHTGQGSICSQAIMLITDGAVDTYDTIFAKY 383
      :: : : |||| : || | :| : | :| || || | : ||||
Db  321 KDAVNNTAKGITDYKKGFSFAFEQLLNYNVSRAN--CNKIIMLFTDGGEERAQEIFAKY 378

Qy  384 NWPDRKVRIFTYLIGREAAAFADNLKWMACANKGFFTQISTLADVQENVMEYLHVLSRPKV 443
      | |::|::|:: :| : :||| |||:: :| : : | || || || |
Db  379 N-KDKKVRVFTFSVGQHNYDRGPIQWMACENKGYEIPSIGAIRINTQEYLDVLGRPMV 437

Qy  444 I--DQEHDVVWTEAYIDSTLTDDQGPVLMTTVAMPVFS----KQNETRSKG-ILLGVVGT 496
      : | : | || |::: : | | : | :||| : :| | :|||:|
Db  438 LAGDKAKQVQWNTNLYLDAL---ELG--LVITGTLVPFNITGQFENKTNLKNQLILGVMGV 492

Qy  497 DVPVKELLKTIPKYKLGIHGYAFAITNNGYILTHPELRL-----LYEEGKKRRKPNYSS 550
      || :::: : |:: | :|| || |::| || | : : :||| :
Db  493 DVSLEDIKRLTPRFTLCPNGYYFAIDPNGYVLLHPNLQPKPIGVGIPTINLRKRRPNVQN 552

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Qy 551 -----VDLSEVEWEDRDDV---LRNAMVNRKTGK--FSMEVK----KTVDKGKRVLVMT 595
 | | : : | : : : | | : : : | | : : : | | : : : | | : : : |
 Db 553 PKSQEPVTLDFLDAELENDIKVEIRNKMIDGESGEKTFRTLKVSQDERYIDKGNRT---- 608
 Qy 596 NDYYYYTDIKGTPFSLGVALSRGHGKYFFRGNVTIEEGLHDLEHPDVSLADEW----- 647
 | : | : | | : | : : : | | : : : | | : : : | | : : : |
 Db 609 --YTWTPVNGTDYSSLALVLPTYSFYIYKAK--IEETITQARYSETLKPDPNFEEESGYTFL 664
 Qy 648 ---SYCNTDLHPEHRHLSQLEAIKLYLKKEP-LLQCDKELIQEVLFDA-VVSAPIEAYW 702
 | | : | | : : | : : : | | : : : | | : : : | | : : : |
 Db 665 APRDYC-SDLKPSDNNTEFLLNFNEFIDRKTENNPSCNTDLINRVLLDAGFTNELVQNYW 723
 Qy 703 TSLALNKSENSDKGVEVAFLGTRTGLSRINLFVGAEQLTNQDFLKAGDKENIFNADHFPL 762
 : : : | | : | : : : | | : : : | | : : : | | : : : |
 Db 724 S-----KQKNIKGVKARFVVDGGITRVYP-----KEAGENWQENPETYEDS 765
 Qy 763 WYRRAAEQIPGSFVYSIPF--STGPVNKSNVVTASTSIQLLDERKSPVVAAVGIQMKLEF 820
 : | : : : : : : | : : : | : : : | : : : | : : : | : : : |
 Db 766 FYKRSLDN--DNYVFTAPYFNKSGPGAYESGIMVSKAVEIYIQKLLKPAVVGKIDVNS 823
 Qy 821 FQRKFWTASRQCASLDGKCSISCDDETVCNLYLIDNNGFILVS--EDYT-QTGDFFGIEG 877
 : | | :
 Db 824 WIENFTKTSIRDPCAGPVCDCKRNSDVMDCVILDDGGFLLMANHDDYTQIGRFFGEIDP 883
 Qy 878 AVMNKLLTMGSFKRITLYDYQAMCRANKESSDGAHGLLDPY-----NAFLSAVKW 927
 : : | :
 Db 884 SLMRHLVNISVYAFNKSVDYQSVCEPGAAPNQGA-GHRSAYVPSIADILQIGWWATAAAW 942
 Qy 928 IMTELVLFLVEF----NLCSWWHSDMTAKAQKLKQTLPCDTEYPAFVSERTIKETTGN 983
 : : | : : | : : | : : | : : | : : | : : | : : | : : | : : |
 Db 943 SILQQFLSLTFRLLLEAADMEDDDFTASMSK-----QSCITEQTQYFFDNDKSKSFGVL 997
 Qy 984 ACEDCSKSFVIQQIPSSNLFMVVVD--SCLCESVAPITMAPIEIRYNESLK CERLKAQK 1041
 | : | : | :
 Db 998 DCGNCSRIFHVEKLINTNLIFIMVESKGTCPCDT---RLLIQAEQTS DGPDCDMVKQPR 1054
 Qy 1042 IRRRPESCHGFHPEENARECGGA----PSLQA----QTVLLLL 1076
 | : | : | :
 Db 1055 YRKGPDVCFDNNVLEDYTDCCGVSGLNPSLWSIIGIQFVLLWL 1097

RESULT 15
 US-08-455-543A-54
 ; Sequence 54, Application US/08455543A
 ; Patent No. 5792846
 ; GENERAL INFORMATION:
 ; APPLICANT: Harpold, Michael
 ; APPLICANT: Ellis, Steven
 ; APPLICANT: Williams, Mark
 ; APPLICANT: Feldman, Daniel
 ; APPLICANT: McCue, Ann
 ; APPLICANT: Brenner, Robert
 ; TITLE OF INVENTION: HUMAN CALCIUM CHANNEL COMPOSITIONS AND
 ; TITLE OF INVENTION: METHODS
 ; NUMBER OF SEQUENCES: 57
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Brown, Martin, Haller & McClain
 ; STREET: 1660 Union Street
 ; CITY: San Diego
 ; STATE: California
 ; COUNTRY: USA
 ; ZIP: 92101-2926
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Diskette
 ; COMPUTER: IBM Compatible
 ; OPERATING SYSTEM: DOS
 ; SOFTWARE: FastSEQ Version 1.5
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/455,543A
 ; FILING DATE: May 31, 1995

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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/223,305
; FILING DATE: April 4, 1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/868,354
; FILING DATE: April 10, 1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/745,206
; FILING DATE: 15-AUG-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/620,250
; FILING DATE: 30-NOV-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/482,384
; FILING DATE: 20-FEB-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/603,751
; FILING DATE: 04-APR-1989
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US89/01408
; FILING DATE: 04-APR-1989
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/176,899
; FILING DATE: 04-APR-1988
; ATTORNEY/AGENT INFORMATION:
; NAME: Seidman, Stephanie L.
; REGISTRATION NUMBER: 33,779
; REFERENCE/DOCKET NUMBER: 6362-52517
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619)238-0999
; TELEFAX: (619)238-0062
; INFORMATION FOR SEQ ID NO: 54:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1086 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-08-455-543A-54

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Query Match          19.7%; Score 1116; DB 1; Length 1086;
Best Local Similarity 28.3%; Pred. No. 1.6e-98;
Matches 322; Conservative 232; Mismatches 457; Indels 126; Gaps 41;

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Qy 14 ASALLAAAL-LYAALGDVVRSEQQIPLSV-VKLWASAFGGEIKSIAAKYSGSQLLKQK 71
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Db 3 AGCLLALTTLFQSLIGPSSEEPFSAVTIKSWVDKMQEDLVTLAKTASGVNQLVDIYE 62

Qy 72 EYEKDVAIEEIDGLQLVKKLAKNMEEMFHKKSEAVRRLVEAAEEAHLKHEFDADL---QY 128
   :| : : | : ||| : |::| : : : | : || : | : :
Db 63 KYQDLYTVEPNNAQLVEIAARDIEKLLSNRSKALVSLALEAEKVQAAHQWREDFASNEV 122

Qy 129 EYFNAVLINERDKDGNFLELGKEFI---LAPNDHFNNLPVNISLSDVQVPTNMYNKDPAI 185
   | : || : : | : | : | : : | : : : | : : : | :
Db 123 VYNAK--DDLDPKNDSEPGSQRIKPVFIEDANFGR-QISYQHAAVHIPTDIYEGSTIV 179

Qy 186 VNGVYWSESLNKVFVDNFD RDPSLIWQYFGSAKGFFRQYPGIKWEPDE---NGVIAFDCR 242
   :| : | : : : || | : ||| : || || | | | : | : : |
Db 180 LNELNWTSALEDEVFKKNREEDPSLLWQVFGSATGLARYYPASPWVDNSRTPNKIDLYDVR 239

Qy 243 NRKWIQAATSPKDVILVDVSGSMKGLRLTIKQTVSSILDTLGDDDDFFNIIAYNEELH 302
   | ||| | ||| : ||||| : || | : : : || : || ||| | : : |
Db 240 RRPWYIQGAASPKDMLILVDVSGSVSGLTLKLIRTSVSEMLETLSDDDFVNVASFNSNAQ 299

Qy 303 YVEPCLNGTLVQADRTNKEHFREHLDKLFAKGIGMLDIALNEAFNILSDFNHTGQGSICS 362
   | | ||| : || : : : : ||| : || | : : | : |
Db 300 DVS-CFQ-HLVQANVRNKKVLKDAVNNTAKGITDYKKGFSFAFEQLLNYNVSRAN--CN 355

Qy 363 QAIMLITDGAVDTYDTIFAKYNWPDRKVRIFTYILIGREAAAFADNLKWMACANKGFFTQIS 422

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      : ||| ||| : || ||| |:||:| : :| :||| |||: :|
Db 356 KIIMLFTDGGEEERAQEIFNKYN-KDKKVRVFRFSVGQHNYERGPIQWMACENKGYYYEIP 414

Qy 423 TLADVQENVMEYLHVLSRPKVI--DQEHVWVTEAYIDSTLTDDQGPVLMTTVAMPVFS- 479
      :: :| | || || || | : | : | || | :| : | :||:
Db 415 SIGAIRINTQEYLDVLGRPMVLGDKAKQVQWTVNYLDAL---ELG--LVITGTLPVFNI 469

Qy 480 ---KQNETRSKG-ILGTVGTDPVPKELLKTIPKYKLGIGHYAFAITNNGYILTHPELRL 535
      :|| | :|||:| || :||: | :| | || | ||:| || |
Db 470 TGQFENKTNLKNQLILGVMGVDVSLEDIKRLTPRFTLCPNGYYFAIDPNGYVLLHPNL-- 527

Qy 536 LYEEGKKRRKPNYSSVDLSEVEWEDRDDV-LRNAMVNRKTGK--FSMEVK---KTVDKG 588
      : :| :| : | | : || | : :| : | || : :||
Db 528 -----QPKPE--VTLDFLDAELENIDKVEIRNKMIDGESGEKTFRTLKVSQDERYIDKG 579

Qy 589 KRVLMVTNDYYYTDIKGTPFSLGVALSRGHGKYFF-----RGNVTIEEGL- 633
      | :| : || :|| :| : | : | :| : | |
Db 580 NRT-----YTWTPVNGTDYSLALVLPY-YSFYIKAKLEETITQARSKKGKMKDSETLK 632

Qy 634 -HDLHPDVSLADEWSYCNLDLHPEHRHLSQLEAIKLYLKKEP-LLQCDKELIQEVLF 691
      : | : ||| || : | : : | | | : || || |
Db 633 PDNFEEGYTFIAPRDYCN-DLKISDNTEFLNFEFIDRKTPNNPSCNADLINRVLLD 691

Qy 692 A-VVSAPIEAYWTSALNKSSENSDKGVEVAFLGTRTGLSRINLFVGAEQLTNQDFLKAGD 750
      | : : || : : : ||| : | | :|| : :||
Db 692 AGFTNELVQNYWS-----KQKNIGVKARFVVDGGITRVYP-----KEAGE 733

Qy 751 KENIFNADHFPLWYRRAAEQIPGSFVYSIPF--STGPVNKSNVVTASTSIQLLDERKSPV 808
      : :||: : :||: | : || : : | :|| : |
Db 734 NWQENPETYEDSFYKRLDN--DNYVFTAPYFNKSGPGAYESGIMVSKAVEIYIQGKLLK 791

Qy 809 VAAVGIQMKLEFFQRKEWTASRQCASLDGKCSISCDDTVNCLIDNNGFILVS--EDYT 866
      | |||: : : | | : | : :|| :|| :||| :||
Db 792 PAVVGKIDVNSWIENFTKTSIRDPCAGPVCDCKRNSDVMDCVILDDGGFLLMANHDDYT 851

Qy 867 -QTGDFGEIEGAVMNKLLTMGSFKRITLYDYQAMCRANKESSDGAHGLLDPY----- 918
      | | ||||: :| | : : ||||:| || | |
Db 852 NQIGRFFGEIDPSLMRHLVNISVYAFNKSYDYQSVCEPGAAPKQGA-GHRSAYVPSVADI 910

Qy 919 ---NAFLSAVKWIMTELVLFLVEF---NLCSWWHSDMTAKAQKLKQTLPCDTEYPAFV 971
      : :| | : : | : | | || | : || :
Db 911 LQIGWWATAAAWSILQQFLLSLTFPRLLEAVEMEDDDFTASLSK-----QSCITEQTQYF 965

Qy 972 SERTIKETTGNACEDCSKSFVIQQIPSSNLFMVVVD--SCLCESVAPITMAPIEIRYN 1029
      : | :| : | :|| : || :|| :|| :| | : |
Db 966 FDNDSKSFSGVLDGNCNRIHGEKLMNTNLIFIMVESKGTCPDTRLLIQAEQTSQDGN 1025

Qy 1030 ESLKCEERLKAQKIRRRPESCHGFHEENARECGGAPSLQAQT--VLLLLPLLLMLFS 1084
      | : : | : | : | : | : || | : : ||| |
Db 1026 ---PCDMVKQPRYRKGPVCFDNNVLEDYDCGGVSGLNPSLWYIIGIQFLLWLVS 1079

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GenCore version 4.5

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OM protein - protein search, using sw model

Run on: January 15, 2001, 13:33:21 ; Search time 392.32 Seconds
(without alignments)
404.352 Million cell updates/sec

Title: US-09-397-550-22
Perfect score: 5667
Sequence: 1 MAGPGSPRRASRGASALLA.....SLQAQTVLLLLPLLLMLFSR 1085

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 901707 seqs, 146207799 residues